

**Notice of Allowability****Application No.**

10/749,300

**Applicant(s)**

BANERJEE ET AL.

**Examiner**

LECHI TRUONG

**Art Unit**

2194

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 06/11/2008.
2. ☒ The allowed claim(s) is/are 1-2, 5-17 now renumbered as claims 1-15.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of the:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.  
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached  
1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.  
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.  
**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 08/22/2005
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.  
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

/Meng-Ai An/  
Supervisory Patent Examiner, Art Unit 2195

**Examiner's Amendment**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Mr. Noel Kivlin (Registration No. 33,929) on 08/21/2008.
3. Amend the following claims:
  1. (Currently Amended) A first node comprising:
    - one or more processors; and
    - memory;
    - wherein the memory stores program instructions executable by the one or more processors to implement:
      - receiving a request from a client application, wherein the request requires a transaction; in response to the request, sending a first message to a plurality of participant nodes participating in the transaction;
      - in response to receiving a reply to the first message from at least a quorum of the participant nodes, sending a second message to the plurality of participant nodes;
      - in response to receiving a reply to the second message from at least a quorum of the participant nodes;

returning an indication to the client application that the request was successfully processed; and

sending a third message to the plurality of participant nodes, wherein the third message instructs the participant nodes to commit the transaction;

wherein the first message comprises a message requesting each of the participant nodes to reply by indicating whether they can commit the transaction;

wherein said receiving the reply to the first message from at least a quorum of the participant nodes comprises receiving a reply indicating an ability to commit the transaction from at least a quorum of the participant nodes;

wherein the second message comprises a message requesting each of the participant nodes to enter a state indicating that the transaction is to be committed; wherein said receiving the reply to the second message from at least a quorum of the participant nodes comprises receiving a reply indicating entrance into the state indicating that the transaction is to be committed from at least a quorum of the participant nodes.

2. (Previously Presented) The first node of claim 1,

wherein sending the third message to the plurality of participant nodes comprises sending the third message after returning the indication to the client application.

3-4. Cancelled

5. (Previously Presented) The first node of claim 1,  
wherein the first message corresponds to a message for a first phase of a three phase commit protocol.
6. (Previously Presented) The first node of claim 1,  
wherein the second message corresponds to a message for a second phase of a three-phase commit protocol.
7. (Previously Presented) The first node of claim 1,  
wherein sending the third message to the plurality of participant nodes completes the first node's involvement in the transaction.
8. (Previously Presented) The first node of claim 1,  
wherein completion of the transaction does not require a reply to the third message from any of the participant nodes.
9. (Previously Presented) The first node of claim 1,  
wherein each participant node commits the transaction in response to receiving the third message but does not return a reply to the third message.
10. (Previously Presented) The first node of claim 1,  
wherein the request comprises a request to update a file;  
wherein the transaction comprises a transaction to coordinate updates to multiple replicas of the file, wherein each respective replica is located on a respective one of the plurality of participant nodes.
11. (Previously Presented) The first node of claim 1,  
wherein the first node is a node in a peer-to-peer network;

wherein the peer-to-peer network implements a distributed file sharing system.

12. (Currently Amended) A first node comprising:

one or more processors; and

memory;

wherein the memory stores program instructions executable by the one or more processors to implement:

receiving a request from a client application, wherein the request requires a transaction;

in response to the request, sending a first message to a plurality of participant nodes participating in the transaction;

in response to receiving a reply to the first message from at least a quorum of the participant nodes, sending a second message to the plurality of participant nodes;

in response to receiving a reply to the second message from at least a quorum of the participant nodes, sending a third message to the plurality of participant nodes,

wherein the third message instructs the participant nodes to commit the transaction;

wherein completion of the transaction does not require a reply to the third message from any of the participating nodes;

wherein the first message comprises a message requesting each of the participant nodes to reply by indicating whether they can commit the transaction;

wherein said receiving the reply to the first message from at least a quorum of the participant nodes comprises receiving a reply indicating an ability to commit the

transaction from at least a quorum of the participant nodes;

wherein the second message comprises a message requesting each of the participant nodes to enter a state indicating that the transaction is to be committed;

wherein said receiving the reply to the second message from at least a quorum of the participant nodes comprises receiving a reply indicating entrance into the state indicating that the transaction is to be committed from at least a quorum of the participant nodes.

13. (Previously Presented) The first node of claim 12,

wherein sending the third message to the plurality of participant nodes completes the first node's involvement in the transaction.

14. (Currently Amended) A computer-readable memory storage medium

storing program instructions executable to implement:

receiving a request from a client application, wherein the request requires a transaction;

in response to the request, sending a first message to a plurality of participant nodes participating in the transaction;

in response to receiving a reply to the first message from at least a quorum of the participant nodes, sending a second message to the plurality of participant nodes;

in response to receiving a reply to the second message from at least a quorum of the participant nodes:

returning an indication to the client application that the request was successfully processed; and

sending a third message to the plurality of participant nodes, wherein the third message instructs the participant nodes to commit the transaction;

wherein the first message comprises a message requesting each of the participant nodes to reply by indicating whether they can commit the transaction;

wherein said receiving the reply to the first message from at least a quorum of the participant nodes comprises receiving a reply indicating an ability to commit the transaction from at least a quorum of the participant nodes;

wherein the second message comprises a message requesting each of the participant nodes to enter a state indicating that the transaction is to be committed;

wherein said receiving the reply to the second message from at least a quorum of the participant nodes comprises receiving a reply indicating entrance into the state indicating that the transaction is to be committed from at least a quorum of the participant nodes.

15. (Currently Amended) The computer-readable memory storage medium of claim 14,

wherein sending the third message to the plurality of participant nodes comprises sending the third message after returning the indication to the client application.

16. (Currently Amended) The computer-readable memory storage medium of claim 14,

wherein completion of the transaction does not require a reply to the third message from any of the participant nodes.

17. (Previously Presented) The computer-readable memory storage medium

of claim 14,

wherein the request comprises a request to update a file;

wherein the transaction comprises a transaction to coordinate updates to multiple replicas of the file, wherein each respective replica is located on a respective one of the plurality of participant nodes.

18-22. (Canceled)

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is (571) 272-3767. The examiner can normally be reached on 8 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).



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/Meng-Ai An/  
Supervisory Patent Examiner, Art Unit 2195

LeChi Truong

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